# Chapter 17

# WIRELESS TELECOMMUNICATIONS TOWERS AND ANTENNAS

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## Section 17.01 Purpose

The purpose of this ordinance is to establish general guidelines for the siting of wireless communications towers and antennas. The goals of this ordinance are to: (1) protect residential areas and land uses from potential adverse impacts of towers and antennas; (2) encourage the location of towers in non-residential areas; (3) minimize the total number of towers throughout the community; (4) strongly encourage the joint use of new and existing tower sites as a primary option rather than construction of additional singleuse towers; (5) encourage users of towers and antennas to locate them, to the extent possible, in areas where the adverse impact on the community is minimal; (6) encourage users of towers and antennas to configure them in a way that minimizes the adverse visual impact of the towers and antennas through careful design, siting, landscape screening, and innovative camouflaging techniques; (7) enhance the ability of the providers of telecommunications services to provide such services to the community quickly, effectively, and efficiently; (8) consider the public health and safety of communication towers; and (9) avoid potential damage to adjacent properties from tower failure through engineering and careful siting of tower structures. In furtherance of these goals, Town of Fountain Hills shall give due consideration to the Town of Fountain Hills General Plan, the Town of Fountain Hills Zoning Ordinance, existing land uses, and environmentally sensitive areas in approving sites for the location of towers and antennas.

#### Section 17.02 Definitions

As used in this ordinance, the following terms shall have the meanings set forth below:

**Alternative tower structure**: means man-made trees, clock towers, bell steeples, light poles and similar alternative-design mounting structures that camouflage or conceal the presence of antennas or towers.

**Antenna**: means any exterior transmitting or receiving device mounted on a tower, building or structure and used in communications that radiates or captures electromagnetic waves, digital signals, analog signals, radio frequencies (excluding radar signals), wireless telecommunications signals or other communication signals.

**Backhaul network**: means the lines that connect a provider's towers/cell sites to one or more cellular telephone switching offices, and/or long distance providers, or the public switched telephone network.

**Existing Structure**: means light poles, power poles, chimneys, billboards, and other similar structures which are placed within the Town at the time of adoption of this Chapter, except existing buildings.

**FAA**: means the Federal Aviation Administration.

FCC: means the Federal Communications Commission.

**Height**: means, when referring to a tower or other structure, the vertical distance measured from the natural grade level to the highest point of the structure directly above the natural grade when such structure is not located in a platted subdivision. If the structure is located in a platted subdivision, the height shall be the vertical distance measured from the finished grade as shown on the subdivision grading plans or finished grade as shown on the individual lot's grading plans, (whichever is lower), to the highest point of the structure directly above the finished grade. In the event that terrain problems prevent an accurate determination of height, the Zoning Administrator shall rule as to height and appeal from that decision shall be to the Board of Adjustment.

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**Pre-existing towers and preexisting antennas**: means any tower or antenna for which a building permit has been properly issued prior to the effective date of this ordinance, including permitted towers or antennas that have not yet been constructed so long as such approval is current and not expired.

**Tower**: means any structure that is designed and constructed primarily for the purpose of supporting one or more antennas for telephone, radio and similar communication purposes, including self-supporting lattice towers, guyed towers, or monopole towers. The term includes radio and television transmission towers, microwave towers, common-carrier towers, cellular telephone towers, alternative tower structures, and the like. The term also includes the structure and any support thereto.

### Section 17.03 Applicability.

**A. New Towers and Antennas**. All new towers or antennas in Town of Fountain Hills shall be subject to these regulations.

## B. Exceptions.

- 1. Amateur Radio Station Operators/Receive Only Antennas. This ordinance shall not govern any tower, or the installation of any antenna, that is under the maximum building height of the zoning district in which such structure is located and which is owned and operated by a federally-licensed amateur radio station operator or is used exclusively for receive only operations.
- 2. Preexisting Towers or Antennas. Legally established preexisting towers and preexisting antennas shall not be required to meet the requirements of this ordinance, other than the requirements of Sections 17.04(F) & (G).
- 3. AM Array. For purposes of implementing this ordinance, an AM array, consisting of one or more tower units and supporting ground system which functions as one AM broadcasting antenna, shall be considered one tower. Measurements for setbacks and separation distances shall be measured from the outer perimeter of the towers included in the AM array. Additional tower units may be added within the perimeter of the AM array by right.

## Section 17.04 General Requirements.

- **A. Principal or Accessory Use.** Antennas and towers may be considered either principal or accessory uses. A different existing use of an existing structure on the same lot shall not preclude the installation of an antenna or tower on such lot.
- **B.** Lot Size. For purposes of determining whether the installation of a tower or antenna complies with district development regulations, including but not limited to setback requirements, lot-coverage requirements, and other such requirements, the dimensions of the entire lot shall control, even though the antennas or towers may be located on leased parcels within such lot.

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- C. Inventory of Existing Sites. Each applicant for an antenna and/or tower shall provide to the Community Development Director an inventory of its existing towers, antennas, or sites approved for towers or antennas, that are either within the jurisdiction of the Town of Fountain Hills or within one mile of the border thereof, including specific information about the location, height, and design of each tower. Each applicant shall also provide a one-year build-out plan for all other wireless communications facilities within the town. The Community Development Director may share such information with other applicants applying for administrative approvals or special use permits under this ordinance or with other organizations seeking to locate antennas within the jurisdiction of Town of Fountain Hills, provided, however that the Community Development Director is not, by sharing such information, in any way representing or warranting that such sites are available or suitable.
- **D. Aesthetics**. Towers and antennas shall meet the following requirements:
  - 1. Towers shall, subject to any applicable standards of the FAA, be painted a neutral color so as to reduce visual obtrusiveness.
  - 2. At a tower site, the design of the buildings and related structures shall, to the extent possible, use materials, colors, textures, screening, and landscaping that will blend them into the natural setting and surrounding buildings.
  - 3. If an antenna is installed on a structure other than a tower, the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with, the color of the supporting structure so as to make the antenna and related equipment as visually unobtrusive as possible.
- **E. Lighting**. Towers shall not be artificially lighted, unless required by the FAA or other applicable authority. If lighting is required, the lighting alternatives and design chosen must cause the least disturbance to the surrounding views.
- F. State or Federal Requirements. All towers must meet or exceed current standards and regulations of the FAA, the FCC, and any other agency of the state or federal government with the authority to regulate towers and antennas. If such standards and regulations are changed, then the owners of the towers and antennas governed by this chapter shall bring such towers and antennas into compliance with such revised standards and regulations within six (6) months of the effective date of such standards and regulations, unless a different compliance schedule is mandated by the controlling state or federal agency. Failure to bring towers and antennas into compliance with such revised standards and regulations shall constitute grounds for the removal of the tower or antenna at the owner's expense.
- G. Building Codes; Safety Standards. To ensure the structural integrity of towers, the owner of a tower shall ensure that it is maintained in compliance with standards contained in applicable state or local building codes and the applicable standards for towers that are published by the Electronic Industries Association, as amended from time to time. If, upon inspection, the Town of Fountain Hills concludes that a tower fails to comply with such codes and standards and constitutes a danger to persons or property, then upon notice being provided to the owner of the tower, the owner shall have thirty (30) days to bring such tower into compliance with such standards. Failure to bring such tower into compliance within said thirty (30) days shall constitute grounds for the removal of the tower or antenna at the owner's expense.

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- **H. Measurement**. For purposes of measurement, tower setbacks and separation distances shall be calculated and applied to facilities located in the Town of Fountain Hills irrespective of municipal and county jurisdictional boundaries.
- I. Not Essential Services. Towers and antennas shall be regulated and permitted pursuant to this chapter and shall not be regulated or permitted as essential services, public utilities, or private utilities.
- **J. Franchises**. Owners and/or operators of towers or antennas shall certify that all franchises required by law for the construction and/or operation of a wireless communication system in the Town of Fountain Hills have been obtained and shall file a copy of all required franchises with the Community Development Director.
- **K. Public Notice**. For purposes of this chapter, any special use request shall require public notice pursuant to Section 2.02 (C) of this Zoning Ordinance except that the notice required shall include posting of the property, and mailing to all property owners within 300 feet of the proposed use, and publication in a newspaper of general circulation regardless of any expression to the contrary in Section 2.02.
- L. Signs. No signs shall be allowed on an antenna or tower.
- **M. Buildings and Support Equipment**. Buildings and support equipment associated with antennas or towers shall comply with the requirements of Section 17.08.
- N. Co-location and Multiple Antenna/Tower Plan. The Town of Fountain Hills encourages tower and antenna users to submit a single application for approval of multiple towers and/or antenna sites and to submit applications which utilize co-location with an existing wireless telecommunications provider. Applications for approval of multiple sites or for co-location with an existing provider shall be given priority in the review process.
- O. Security fencing. Towers shall be enclosed by security fencing not less than six (6) feet in height and no more than eight (8) feet in height, shall be constructed of a block or masonry, and shall be equipped with an appropriate anti-climbing device; provided however, that the Town Council may waive such requirements as it deems appropriate.
- **P. Landscaping**. The following requirements shall govern the landscaping surrounding towers; provided, however, that the Town Council may waive such requirements if the goals of this chapter would be better served thereby.
  - 1. Tower facilities shall be landscaped with a buffer of plant materials that effectively screens the view of the tower compound from residential property. The standard buffer shall consist of a landscaped strip at least four (4) feet wide outside the perimeter of the compound.
  - 2. In locations where the visual impact of the tower would be minimal, the landscaping requirement may be reduced or waived.
  - 3. Existing mature plant growth and natural land forms on the site shall be preserved to the maximum extent possible.

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### Section 17.05 Permitted Uses.

- **A. General**. The uses listed in this Section are deemed to be permitted uses and shall not require administrative approval or a special use permit.
- **B. Permitted Uses**. The following uses are specifically permitted:
  - 1. Antennas or towers located on property owned, leased, or otherwise controlled by the Town of Fountain Hills provided a license or lease authorizing such antenna or tower has been approved by the Town of Fountain Hills. No such license or lease shall be issued for a tower located within three hundred (300) feet of any residentially zoned property until a public hearing has been held at a regular or special Town Council meeting.
  - 2. Alternative tower structures when such structures and their accompanying equipment are appropriately blended into the surrounding terrain, are within the height limitations of the underlying zoning district and are not nearer than three hundred (300) feet to residentially zoned and platted property.

### **Section 17.06 Special Use Permits.**

- **A. General**. The following provisions shall govern the issuance of special use permits for towers or antennas by the Town Council:
  - 1. If the tower or antenna is not a permitted use under Section 17.05 of this chapter, then a special use permit shall be required for the construction of a tower or the placement of an antenna in all zoning districts.
  - 2. Applications for special use permits under this Section shall be subject to the procedures and requirements of Chapter 2, Section 2.02, of this Zoning Ordinance, except as modified in this Section.
  - 3. In granting a special use permit, the Town Council may impose conditions to the extent such conditions are necessary to minimize any adverse effect of the proposed tower on adjoining properties.
  - 4. Any information of an engineering nature that the applicant submits, whether civil, mechanical, or electrical, shall be certified by an Arizona licensed professional engineer.
  - 5. An applicant for a special use permit shall submit the information described in this section and a non-refundable fee established pursuant to Section 2.02 (H) of this Zoning Ordinance.
  - 6. A Special Use Permit issued under this Chapter shall be conditioned upon verification by the Town Engineer or designee that such tower structure is structurally sound. Such verification shall be received by the applicant prior to submission.

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### B. Towers.

- 1. Information required. In addition to any information required for applications for special use permits pursuant to Chapter 2, Section 2.02 of this Zoning Ordinance, applicants for a special use permit for a tower shall submit the following information:
  - a. A Plan of Development as required in Section 2.04 plus zoning, General Plan classification of the site and all properties within the applicable separation distances set forth in Section 17.07(B), adjacent roadways, proposed means of access, elevation drawings of the proposed tower and any other structures, and other information deemed by the Community Development Director to be necessary to assess compliance with this chapter.
  - b. The setback distance between the proposed tower and the nearest residential unit and residentially zoned properties.
  - c. The separation distance from other towers described in the inventory of existing sites submitted pursuant to Section 17.04(C) shall be shown on an updated site plan or map. The applicant shall also identify the type of construction of the existing tower(s) and the owner/operator of the existing tower(s), if known.
  - d. Method of fencing, and finished color and, if applicable, the method of camouflage and illumination.
  - e. A description of compliance with Sections 17.04(C), (D), (E), (F), (G), (J), (L), and (M), (N), (O) and (P), 17.07(A), 17.07(B) and all applicable federal, state or local laws
  - f. A notarized statement by the applicant as to whether construction of the tower will accommodate collocation of additional antennas for future users.
  - g. Identification of the entities providing the backhaul network for the tower(s) described in the application and other cellular sites owned or operated by the applicant in the municipality.
  - h. A description of the suitability of the use of existing towers, other structures or alternative technology not requiring the use of towers or structures to provide the services to be provided through the use of the proposed new tower.
  - i. A description of the feasible alternative location(s) of future towers or antennas within the Town of Fountain Hills based upon existing physical, engineering, technological or geographical limitations in the event the proposed tower is erected.
  - j. A statement of compliance with Federal Communications Commission (FCC) Radio Frequency (RF) exposure standards.
- 2. **Noise**. No permit shall be issued for any facility which generates a noise level greater than fifty decibels (50 db) as measured at the edge of the property upon which such facility is sited.

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- 3. **Factors Considered in Granting Special Use Permits for Towers.** In addition to any standards for consideration of special use permit applications pursuant to Chapter 2, Section 2.02 of this Zoning Ordinance, the Town Council shall consider the following factors in determining whether to issue a special use permit, although the Town Council may waive or reduce the burden on the applicant of one or more of these criteria if the Town Council concludes that the goals of this ordinance are better served thereby:
  - a. Height of the proposed tower;
  - b. Proximity of the tower to residential structures and residentially zoned district boundaries:
  - c. Nature of uses on adjacent and nearby properties;
  - d. Surrounding topography;
  - e. Surrounding tree coverage and foliage;
  - f. Design of the tower, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness.
  - g. Proposed ingress and egress; and
  - h. Availability of suitable existing towers, other structures, or alternative technologies not requiring the use of towers or structures, as discussed in Section 17.06(B)(4) of this chapter.
- 4. **Availability of Suitable Existing Towers, Other Structures, or Alternative Technology**. No new tower shall be permitted unless the applicant demonstrates to the reasonable satisfaction of the Town Council that no existing tower, structure or alternative technology that does not require the use of towers or structures can accommodate the applicant's a proposed antenna. An applicant shall submit information requested by the Town Council related to the availability of suitable existing towers, other structures or alternative technology. Evidence submitted to demonstrate that no existing tower, structure or alternative technology can accommodate the applicant's proposed antenna may consist of any of the following:
  - a. No existing towers or structures are located within the geographic area which meet applicant's engineering requirements.
  - b. Existing towers or structures are not of sufficient height to meet applicant's engineering requirements.
  - c. Existing towers or structures do not have sufficient structural strength to support applicant's proposed antenna and related equipment.
  - d. The applicant's proposed antenna would cause electromagnetic interference with the antenna on the existing towers or structures, or the antenna on the existing towers or structures would cause interference with the applicant's proposed antenna.

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- e. The fees, costs, or contractual provisions required by the owner in order to share an existing tower or structure or to adapt an existing tower or structure for sharing are unreasonable. Costs exceeding new tower development are presumed to be unreasonable
- f. The applicant demonstrates that there are other limiting factors that render existing towers and structures unsuitable.
- g. The applicant demonstrates that an alternative technology that does not require the use of towers or structures, such as a cable microcell network using multiple low-powered transmitters/receivers attached to a wireline system, is unsuitable. Costs of alternative technology that exceed new tower or antenna development shall not be presumed to render the technology unsuitable.

### **Section 17.07 Minimum Setbacks and Separation**

- **A. Setbacks.** The following setback requirements shall apply to all towers; provided, however, that the Town Council may reduce the standard setback requirements if the goals of this chapter would be better served thereby:
  - 1. Towers must be set back a distance equal to at least one hundred percent (100%) of the height of the tower from any adjoining lot line. Provided, however, that separation distances from residential uses shall be in accordance with Table 1 set forth below.
  - 2. Accessory buildings must satisfy the minimum zoning district setback requirements.
- **B. Separation.** The following separation requirements shall apply to all towers and antennas provided, however, that the Town Council may reduce the standard separation requirements if the goals of this chapter would be better served thereby.
  - 1. Separation from off-site uses/designated areas.
    - a. Tower separation shall be measured from the base of the tower to the lot line of the off-site uses and/or designated areas as specified in Table 1, except as otherwise provided in Table 1.
    - b. Separation requirements for towers shall comply with the minimum standards established in Table 1.

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Table 1
Separation Requirements From Offsite Uses/Areas

Off-site Use/Designated Area	Separation Distance	
Single-family or duplex residential units <sup>1</sup>	200 feet or 300% of tower height, whichever is greater	
Vacant single-family or duplex residentially zoned land which is either platted or has preliminary plat approval which is not expired	200 feet or 300% of tower height, whichever is greater <sup>2</sup>	
Vacant unplatted residentially zoned lands <sup>3</sup>	100 feet or 100% of tower height, whichever is greater	
Existing multi-family residential units greater than duplex units	100 feet or 100% of tower height, whichever is greater	
Non-residentially zoned lands or non-residential uses	None, only setbacks apply	

Indludes modular homes and mobile homes used for living purposes.

Separation measured from base of tower to closest building setback line.

Includes any unplatted residential use properties without a valid preliminary subdivision plan or valid development plan and any multi-family residentially zoned land greater than a duplex.

## 2. Separation distances between towers.

Separation distances between towers shall be applicable for and measured between the proposed tower and preexisting towers. The separation distances shall be measured by drawing or following a straight line between the base of the existing tower and the proposed base, pursuant to a site plan, of the proposed tower. The separation distances (listed in linear feet) shall be as shown in Table 2.

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Table 2
Separation Distances Between Towers

	Monopole 65 ft. in height or greater	Monopole less than 65 ft. in height but greater than 40 ft. in height	Monopole less than 40 ft. in height
Monopole 65 ft. in height or greater	2,000 feet	1,500 feet	1,000 feet
Monopole less than 65 ft. in height but greater than 40 ft. in height	1,500 feet	1,500 feet	1,000 feet
Monopole less than 40 ft. in height	1,000 feet	1,000 feet	750 feet

## **Section 17.08 Buildings or Other Equipment Storage.**

- **A. Antennas Mounted on Structures or Rooftops**. The equipment cabinet or structure used in association with antennas shall comply with the following:
  - 1. The cabinet or structure shall not contain more than one hundred-twenty (120) square feet of gross floor area or be more than eight (8) feet in height and shall be located on the ground.
  - 2. Equipment storage buildings or cabinets shall comply with all applicable building codes.
- **B. Antennas Mounted on Utility Poles, Light Poles, or Towers.** The equipment cabinet or structure used in association with antennas shall be located in accordance with the following:
  - 1. In residential districts, the equipment cabinet or structure may be located:
    - a. In a required front yard or required street side yard provided the cabinet structure is no greater than three and one-half (3.5) feet in height or twenty (20) square feet of gross floor area and the cabinet/structure is located a minimum of three (3) feet from all lot lines. The cabinet/structure shall be screened by sight-obscuring landscaping which obscures at least ninety-five percent (95%) of the structure at planting and throughout the duration of the cabinet or structure's existence with an ultimate height not to exceed forty-two (42) inches.

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- b. In a required rear yard, provided the cabinet or structure is no greater than five (5) feet in height or one hundred-twenty (120) square feet in gross floor area. The cabinet/structure shall be screened by sight-obscuring landscaping which obscures at least ninety-five percent (95%) of the structure at planting and throughout the duration of the cabinet or structure's existence with an ultimate height of six (6) feet.
- c. The entry or access side of a cabinet or structure shall be gated by a solid, sight-obscuring gate that is separate from the cabinet or structure.
- 2. In commercial or industrial districts the equipment cabinet or structure shall be no greater than fourteen (14) feet in height or three hundred (300) square feet in gross floor area. The structure or cabinet shall be screened by sight-obscuring landscaping with an ultimate height of sixteen (16) feet and a planted height of at least six (6) feet. The entry or access side of a cabinet or structure shall be gated by a solid, sight-obscuring gate that is separate from the cabinet or structure. Such access way shall not face residentially zoned property.
- C. Modification of Building Size Requirements. The requirements of Sections 17.08(A) through (C) may be modified by the Town Council in the case of uses permitted by special use to encourage collocation.

#### Section 17.09 Co-Location.

- A. Good Faith. Applicants and permittees shall cooperate and exercise good faith in co-locating wireless telecommunications facilities on the same support structures or site, if the Town so requests. Good faith shall include sharing technical information to evaluate the feasibility of co-location, and may include negotiations for erection of a replacement support structure to accommodate co-location. A competitive conflict to co-location or financial burden caused by sharing such information normally will not be considered as an excuse to the duty of good faith.
- **B.** Third Party Technical Review. In the event a dispute arises as to whether a permittee has exercised good faith in accommodating other users, the Town may require the applicant to obtain a third party technical study at the applicant's expense. The Town may review any information submitted by the applicant and permittee(s) in determining whether good faith has been exercised.
- **C. Exceptions**. No co-location may be required where the shared use would or does result in significant interference in the broadcast or reception capabilities of the existing wireless telecommunications facilities or failure of the existing wireless telecommunications facilities to meet federal standards for emissions.
- **D. Violation; penalty**. Failure to comply with co-location requirements when feasible may result in denial of a permit request or revocation of an existing permit.

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#### Section 17.10 Removal of Abandoned Antennas and Towers.

Any antenna or tower that is not operated for a continuous period of ninety (90) days shall be considered abandoned, and the owner of such antenna or tower shall remove the same within ninety (90) days of receipt of notice from the Town of Fountain Hills notifying the owner of such abandonment. Failure to remove an abandoned antenna or tower within said ninety (90) day period shall be grounds to remove the tower or antenna at the owner's expense. If there are two or more users of a single tower, then this provision shall not become effective until all users cease using the tower for the prescribed period.

## **Section 17.11 Nonconforming Uses.**

- **A. Not Expansion of Nonconforming Use.** Towers that are constructed, and antennas that are installed, in accordance with the provisions of this chapter shall not be deemed to constitute the expansion of a nonconforming use or structure.
- **B. Pre-existing towers.** Pre-existing towers shall be allowed to continue their usage as they presently exist. Routine maintenance (including replacement with a new tower of like construction and height) shall be permitted on such preexisting towers. New construction other than routine maintenance on a preexisting tower shall comply with the requirements of this chapter.
- C. Rebuilding Damaged or Destroyed Nonconforming Towers or Antennas. Notwithstanding other provisions of this chapter, bona fide nonconforming towers or antennas that are damaged or destroyed may be rebuilt without having to first obtain a special use permit and without having to meet the separation requirements specified in Sections 17.07(A) and 17.07(B). The type, height, and location of the tower onsite shall be of the same type and intensity as the original facility approval; provided, however, that any destroyed lattice or guyed tower shall be replaced with a monopole structure only. Building permits to rebuild the facility shall comply with the then applicable building codes and shall be obtained within ninety (90) days from the date the facility is damaged or destroyed. If no permit is obtained or if said permit expires, the tower or antenna shall be deemed abandoned as specified in Section 17.10.

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